

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-15 are now pending, wherein claims 1-15 are amended and claim 16 is canceled. Pursuant to the telephone call between Examiner Huang and the undersigned on January 15, 2008, these claim amendments are being made relative to the Annexes to the International Preliminary Examination Report. Due to the objections noted in the Office Action regarding the form of the Preliminary Amendment filed on July 19, 2004, the present claim amendments do not reflect the amendments of the Preliminary Amendment.

Initially, Applicant notes with appreciation the Examiner's indication that claims 3, 4, 6 and 12-14 contain allowable subject matter.

The Office Action notes that the Information Disclosure Statement filed on July 19, 2004, did not include copies of two foreign patent documents. Applicant believed that these documents would be forwarded by the International Bureau. Nevertheless, in order to ensure consideration of these documents, Applicant submits a new Information Disclosure Statement along with copies of each of these foreign patent documents. Applicant respectfully requests that the Examiner consider each patent document cited in this Information Disclosure

Statement, and indicate such consideration by returning an Examiner-initialed copy of the SB/08.

The specification is objected to for not including specific section headings. Applicant has amended the application to include section headings. Accordingly, withdrawal of this objection is respectfully requested.

Claims 1-15 are objected to for minor informalities. As discussed above, because the objections noted non-compliance with 37 C.F.R. § 1.121(c)(2), the amendments to the claims submitted herewith are not made relative to the Preliminary Amendment, but instead relative to the Annexes to the International Preliminary Examination Report. Moreover, it is respectfully submitted that the claims are amended to address the other issues raised by the objections to these claims. Accordingly, withdrawal of this objection is respectfully requested.

Claims 1, 2, 5, 7, 9 10, 11 and 15 are rejected under 35 U.S.C. § 103(a) as being obvious in view of the combination of U.S. Patent No. 4,462,001 to Girard ("Girard") and U.S. Patent Application Publication No. 2002/0044014 to Wright et al. ("Wright"). This ground of rejection is respectfully traversed.

The combination of Girard and Wright does not render Applicant's claim 1 obvious because the combination does not disclose or suggest

a phase splitting unit, which splits an input RF signal into an in-phase component and a quadrature component;

combining units, which respectively combine the X^2 signal, the in-phase component, the quadrature component, and an external signal with respective predistorting coefficients; and

an adder, which generates a predistorted RF signal from the output of the combining units.

Girard discloses a baseband linearizer for wideband high power, nonlinear amplifiers. The Office Action recognizes that Girard does not explicitly disclose a phase splitting unit, but instead states that this is inherent in the disclosure of Girard. Girard, however, is directed to a *baseband* linearizer, and as such the linearizer operates on *baseband signals* and not radio frequency signals. Accordingly, Girard does not disclose or suggest the claimed phase splitting unit that “splits an input RF signal” as recited in Applicant’s claim 1.

The Office Action relies on summing circuits 19 and 20 of Girard as disclosing the claimed adder. Again, Girard operates on *baseband signals* and not radio frequency signals. Accordingly, summing circuits 19 and 20 of Girard do not generate “a predistorted RF signal” as recited in Applicant’s claim 1.

The Office Action also relies upon variable attenuators 13 and 14 of Girard as partially disclosing the claimed combining units. In contrast to the combining

units of Applicant's claim 1, which combine signals, attenuators 13 and 14 of Girard do not combine signals, but instead merely attenuate signals. Accordingly, one of ordinary skill in the art would not have interpreted attenuators 13 and 14 of Girard as combining units.

The Office Action relies upon digital compensation signal processor (DCSP) 52 of Wright as disclosing the claimed combining units. Wright, however, does not disclose or suggest that DCSP 52 combines "the X^2 signal, the in-phase component, the quadrature component, and an external signal with respective predistorting coefficients." Furthermore, Wright, like Girard, does not disclose or suggest a phase splitting unit that splits a *radio frequency* input signal, or an adder that generates a predistorted *radio frequency* signal.

Because Girard and Wright each do not disclose or suggest the phase splitting unit, combining units and adder recited in claim 1, the combination of Girard and Wright cannot render this claim obvious.

Claims 2, 5, 7 and 9 are patentably distinguishable over the combination of Girard and Wright at least by virtue of their dependency from claim 1.

Independent claim 10 recites similar elements to those discussed above with regard to claim 1, and is patentably distinguishable over the combination of Girard and Wright for similar reasons. Claims 11 and 15 are patentably

distinguishable over the combination of Girard and Wright at least by virtue of their dependency from claim 10.

For at least those reasons set forth above, it is respectfully requested that the rejection of claims 1, 2, 5, 7, 9 10, 11 and 15 for obviousness be withdrawn.

Claim 8 is rejected under 35 U.S.C. § 103(a) as being obvious in view of the combination of Girard and U.S. Patent Application Publication No. 2001/0048346 to Matsuura et al. ("Matsuura"). This ground of rejection is respectfully traversed.

The combination of Girard and Matsuura does not render claim 8 obvious because the combination does not disclose or suggest the claimed first and second compensating apparatus, both of which receive a radio frequency input signal. Furthermore, the combination does not disclose or suggest the claimed adder, which sums the outputs of the first and second compensating apparatus.

The Office Action relies upon envelope predistortion circuit 4 and phase predistortion circuit 5 of Girard as disclosing the claimed first and second compensating apparatus. As discussed above, Girard operates using *baseband signals*, and accordingly, predistortion circuit 4 and phase predistortion circuit 5 of Girard do not receive an RF input signal.

Furthermore, the rejection of claim 8 relies upon a modification of Girard such that the outputs of envelope predistortion circuit 4 and phase predistortion circuit 5 are supplied to an adder. Girard, however, discloses that envelope predistortion circuit 4 and phase predistortion circuit 5 are arranged in a serial fashion such that the outputs of circuit 4 *are provided to* circuit 5. Accordingly, there is no reason why one of ordinary skill in the art would have been motivated to add the outputs of envelope predistortion circuit 4 and phase predistortion circuit 5 of Girard.

There is nothing in the disclosure of Matsuura that would have motivated one of ordinary skill in the art to have modified Girard such that the output of circuit 4, which is fed to circuit 5, would also be added to the output of circuit 5. Accordingly, the combination of Girard and Matsuura does not render claim 8 obvious.

For at least those reasons set forth above, it is respectfully requested that the rejection of claim 8 for obviousness be withdrawn.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #038819.54980US).

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Respectfully submitted,



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